



[10191/4030]

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES**

Applicants : Christian DANZ et al.
Serial No. : 10/564,371
Filed : July 19, 2006
For : **METHOD AND DEVICE FOR DETERMINING THE
POSITION AND/OR THE ANTICIPATED POSITION OF
A VEHICLE DURING A PARKING OPERATION IN
RELATION TO THE ONCOMING LANE OF A MULTI-
LANE ROADWAY**

Group Art Unit : 2612
Confirmation No. : 7826
Examiner : Hongmin FAN

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Jong H. Lee

**APPELLANTS' REPLY BRIEF IN RESPONSE TO
EXAMINER'S ANSWER (UNDER 37 C.F.R. § 41.41)**

S I R :

In response to the Examiner's Answer (hereinafter the "Answer") mailed on November 24, 2009 regarding the final rejection of claims 11-12 and 14-20 in the above-identified application, Applicants submit the following arguments in support of the appeal of the final rejection.

ARGUMENTS

Related Appeals & Interferences

To the extent the Examiner contends in the Answer that the Appeal Brief mailed on 8/18/09 “does not contain a statement identifying the related appeals and interferences,” Applicants note that such statement was clearly supplied on p. 2 of the Appeal Brief under the heading “Related Appeals and Interferences,” i.e., Applicants indicated that no such appeal or interference is known to exist.

Rejection of Claims 11, 12 and 14-20

Claims 11, 12 and 14-20 have been rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent Publication No. 2002/0041239 by Shimizu et al. ("Shimizu") in view of U.S. Patent No. 7,038,577 to Pawlicki et al. ("Pawlicki").

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. In re Rijckaert, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish a *prima facie* case of obviousness, the Examiner must show, *inter alia*, that there is some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the references, and that, when so modified or combined, the prior art teaches or suggests all of the claim limitations. M.P.E.P. §2143. In addition, as clearly indicated by the Supreme Court, it is “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. See KSR Int’l Co. v. Teleflex, Inc., 82 U.S.P.Q.2d 1385 (2007). In this regard, the Supreme Court further noted that “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” (Id., at 1396). To the extent that the Examiner may be relying on the doctrine of inherent disclosure in support of the obviousness rejection, the Examiner must provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art.” (See M.P.E.P. § 2112; emphasis in original; see also Ex parte Levy, 17 U.S.P.Q.2d 1461, 1464 (Bd. Pat. App. & Inter. 1990)).

Independent claim 11 recites, in relevant part, a method for “**determining at least one of a position and an anticipated position of a vehicle during a parking operation in**

relation to an oncoming lane of a multi-lane roadway,” which method includes “determining a position of the oncoming lane in relation to the vehicle at a beginning of the parking operation; . . . ; determining at least one potential intersection of the anticipated parking trajectory with the oncoming lane; and providing a signal in the presence of at least one actual intersection of the parking trajectory with the oncoming lane.” Independent device claim 17 recites substantially similar features as the above-recited features of claim 11.

With respect to the claimed limitation of “determining a position of the oncoming lane in relation to the vehicle at a beginning of the parking operation,” the Examiner explicitly concedes in the Answer that “Shimizu et al. did not disclose determining potential intersection with oncoming traffic and providing a warning signal.” In an attempt to overcome this glaring deficiency, the Examiner presents a series of completely unsupported, hypothetical assumptions, i.e., “it is quite common for a vehicle to park along a busy street (or multi-lane) and when a driver is trying to park in this situation, the vehicle will veer toward the median line and often across into the oncoming lane, potentially colliding head on with oncoming traffic.” (Answer, p. 6). However, the Examiner’s unsupported, hypothetical assumptions are, at best, nothing more than “mere conclusory statements” which the Supreme Court explicitly noted in KSR as being inadequate for sustaining an obviousness rejection. In addition, to the extent the Examiner contends that “the vehicle will veer . . . often across into the oncoming lane,” the mere hypothetical possibility of crossing into the oncoming lane cannot support an obviousness conclusion, let alone support a finding of inherent disclosure, which requires the Examiner to provide a “basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied art.”

In any case, even if one assumed for the sake of argument that there were some merit to the Examiner’s contention that it is possible for the vehicle to cross into the oncoming lane during a parking maneuver, this assumption has no relevance to the claimed limitation of “determining a position of the oncoming lane in relation to the vehicle,” let alone anything to do with determining such a position “at a beginning of the parking operation.” More particularly, the mere possibility that a vehicle may cross into the oncoming lane during a parking maneuver does not suggest “determining a position of the oncoming lane in relation to the vehicle.” In summary, there is simply no objective basis to conclude that the teachings of Shimizu, even if viewed in light of the ordinary skill level in the art (which has

not been established), would suggest “**determining a position of the oncoming lane in relation to the vehicle** at a **beginning** of the **parking operation**.” Similarly, there is simply no disclosure or suggestion in Pawlicki regarding “**determining a position of the oncoming lane in relation to the vehicle** at a **beginning** of the **parking operation**.”

Independent of the above, with respect to the claimed feature of “**determining** at least **one potential intersection** of the **anticipated parking trajectory** with the **oncoming lane**,” the Examiner explicitly concedes in the Answer that “Pawlicki did not teach determination of an intersection of ‘the anticipated parking trajectory with the oncoming lane.’” (Answer, p. 7). In order to overcome this acknowledged deficiency, the Examiner contends that “one of ordinary skill in the art clearly recognizes that when parking a vehicle along a street, **the vehicle will veer** toward the median line and **often across** into the opposite incoming lane, which is a **well known parking trajectory, whether anticipated or not anticipated**.” Once again, the Examiner’s contention that a **vehicle may cross** into the opposite lane is a completely unsupported, hypothetical assumption about what could theoretically happen, and such assertion is nothing more than a “mere conclusory statement” which is inadequate to support an obviousness conclusion, as explicitly noted by the Supreme Court in KSR. Furthermore, the mere theoretical possibility that some unidentified parking path may intersect with the oncoming lane cannot possibly suggest “**determining**” a potential intersection between a specific “anticipated parking trajectory” that has been previously determined and “the oncoming lane.”

In any case, the Examiner’s contention that the mere theoretical possibility of a vehicle’s crossing into the opposite incoming lane suggests a “**well known parking trajectory, whether anticipated or not anticipated**,” evidences the Examiner’s willful disregard of the explicitly claimed limitations. The claimed “anticipated parking trajectory” is a **specific trajectory** that has been determined in an earlier step (“determining an anticipated parking trajectory”), and there is no logical basis to contend that a mere theoretical possibility of a vehicle’s crossing into the opposite incoming lane suggests a **specific trajectory that has been determined**, let alone suggests a “**well known parking trajectory**.” In addition, to the extent the Examiner contends that the mere theoretical possibility of a vehicle’s crossing into the opposite incoming lane suggests a “**well known parking trajectory, whether anticipated or not anticipated**,” the Examiner is clearly ignoring the explicit limitation “**anticipated**” which qualifies “parking trajectory,” i.e., the potential intersection to be determined according to the present claimed subject matter is the

intersection between the specific “**anticipated parking trajectory**,” which has been determined in an earlier step, and the oncoming lane.

In addition to the above, to the extent the Examiner continues to assert in the Answer that the claimed “oncoming lane” should be construed as meaning “oncoming traffic,” (Answer, p. 8), the Examiner hasn’t provided any factual or legal basis to support the Examiner’s asserted interpretation. The only rationale the Examiner provides in support of the asserted interpretation is the **hypothetical assumption** that “**if it is just a permanent empty lane(s)**, then there will be no potential danger.” However, the Examiner’s argument is based on circular reasoning: the Examiner concludes that the Applicants’ invention must be focused on “oncoming traffic” by **assuming the hypothetical existence of “a permanent empty lane,”** but there is no logical basis to assume such “a permanent empty lane” in the context of the present invention. Indeed, not only is the notion of “a permanent empty lane” inherently absurd (why would such a lane exist?), but it is precisely **because there is no logical basis to assume “a permanent empty lane”** that the present invention focuses on the “oncoming lane,” as explicitly claimed, rather than the “oncoming traffic” which is not mentioned anywhere in the claim.

Furthermore, to the extent the Examiner contends in the Answer (p. 8) that “lane markings 113e [of Pawlicki] clearly define ‘oncoming lane,’” there is no factual basis for this contention. In Fig. 13 of Pawlicki, the two vehicles 12 and 112 separated by the lane marking 113e are clearly **headed in the same direction**, and there is no suggestion that one of the two cars is traveling against the designated direction of the lane. Accordingly, the Examiner’s contention that “lane markings 113e [of Pawlicki] clearly define ‘oncoming lane’” is not supported.

Independent of the above, to the extent the Examiner contends on p. 9 of the Answer that col. 25, l. 17-20 of Pawlicki teaches that “**even if there is no oncoming traffic**, as long as the vehicle begun to cross into the oncoming traffic lane, **a warning will be issued**,” and that “this is exactly the same as the claim wherein ‘intersection of the parking trajectory with the oncoming lane,’” the text of Pawlicki section cited by the Examiner explicitly contradict the Examiner’s contentions: “if the vehicle has already begun to cross into the oncoming traffic before oncoming traffic is detected, the lane departure warning may issue the urgent warning **when oncoming traffic is detected**.” The cited section of Pawlicki explicitly states

that a warning will be issued **“when oncoming traffic is detected,”** not **“even if there is no oncoming traffic.”**

Finally, in response to the Applicants’ argument that the overall teachings of Shimizu and Pawlicki contradict the modification asserted by the Examiner, the Examiner contends in the Answer that “[e]ven though Shimizu reference indicates that an object of the invention is to simplify and reduce the cost of its system, added function of collision avoidance would provide safety features not existed in the Shimizu’s system; therefore, **there is no meaningful comparison between Shimizu’s system and combined system of Shimizu and Pawlicki** as to the cost or simplicity.” However, this is a mere conclusory contention that defies intuitive logic: adding Pawlicki to the Shimizu system would clearly impose additional complexity and cost. As noted in the Appeal Brief, the asserted modification of Shimizu reference by incorporating the teachings of Pawlicki would clearly **defeat the stated object of Shimizu** of simplifying and reducing the cost of its system, e.g., “there is **no need for an image processing device for detecting the target parking position or need for calculation of the driver’s operations required for moving the subject vehicle along an expected trajectory**, the parking aid system can be realized with very low cost.” (Shimizu, paragraph [0009]). Since Pawlicki relies on image gathering, processing, and calculating to determine whether something is a vehicle or an object of significance, not only does Shimizu teach away from Pawlicki, but the asserted modification of Shimizu would clearly defeat the purpose and intent of the Shimizu reference, thereby negating the obviousness conclusion as a matter of law.

For at least the foregoing reasons, Applicants submit that the overall teachings of Shimizu and Pawlicki cannot suggest **“determining at least one of a position and an anticipated position of a vehicle during a parking operation in relation to an oncoming lane of a multi-lane roadway,”** including **“determining a position of the oncoming lane in relation to the vehicle** at a beginning of the **parking operation**; . . . ; determining at least one **potential intersection of the anticipated parking trajectory with the oncoming lane**; and providing **a signal in the presence of at least one actual intersection of the parking trajectory** with the oncoming lane.” Therefore, claims 11 and 17, as well as dependent claims 12, 14-16 and 18-20, are allowable over Shimizu and Pawlicki.

CONCLUSION

For the preceding reasons, it is respectfully submitted that the rejections of claims 11, 12 and 14-20 should be reversed.

While no fees are believed to be due in connection with this paper, the Office is authorized to charge any fees deemed necessary in connection with this paper to Deposit Account No. **11-0600** of **Kenyon & Kenyon LLP**.

Respectfully submitted,

KENYON & KENYON LLP



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